

FIG. 1

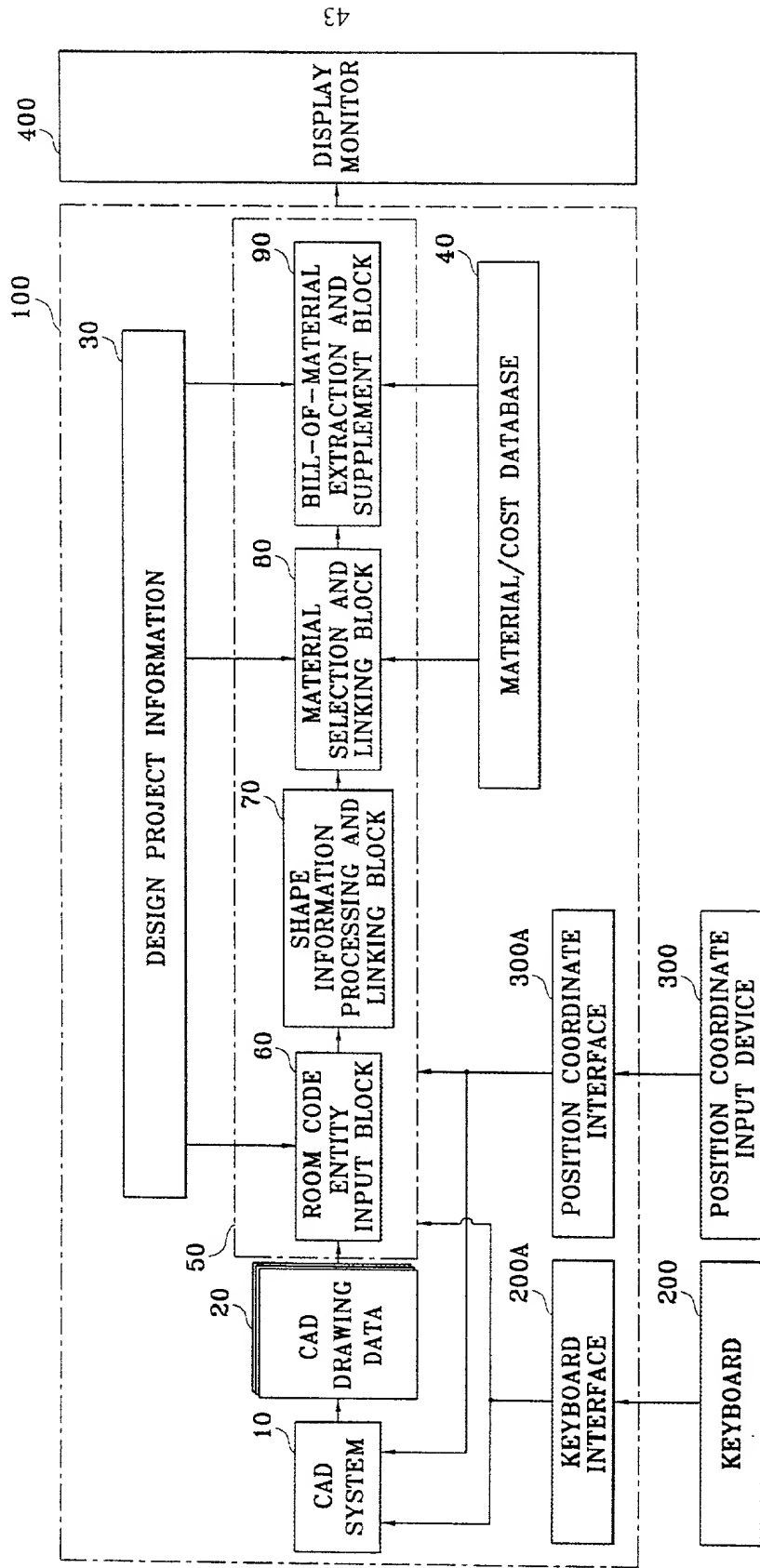


FIG.2

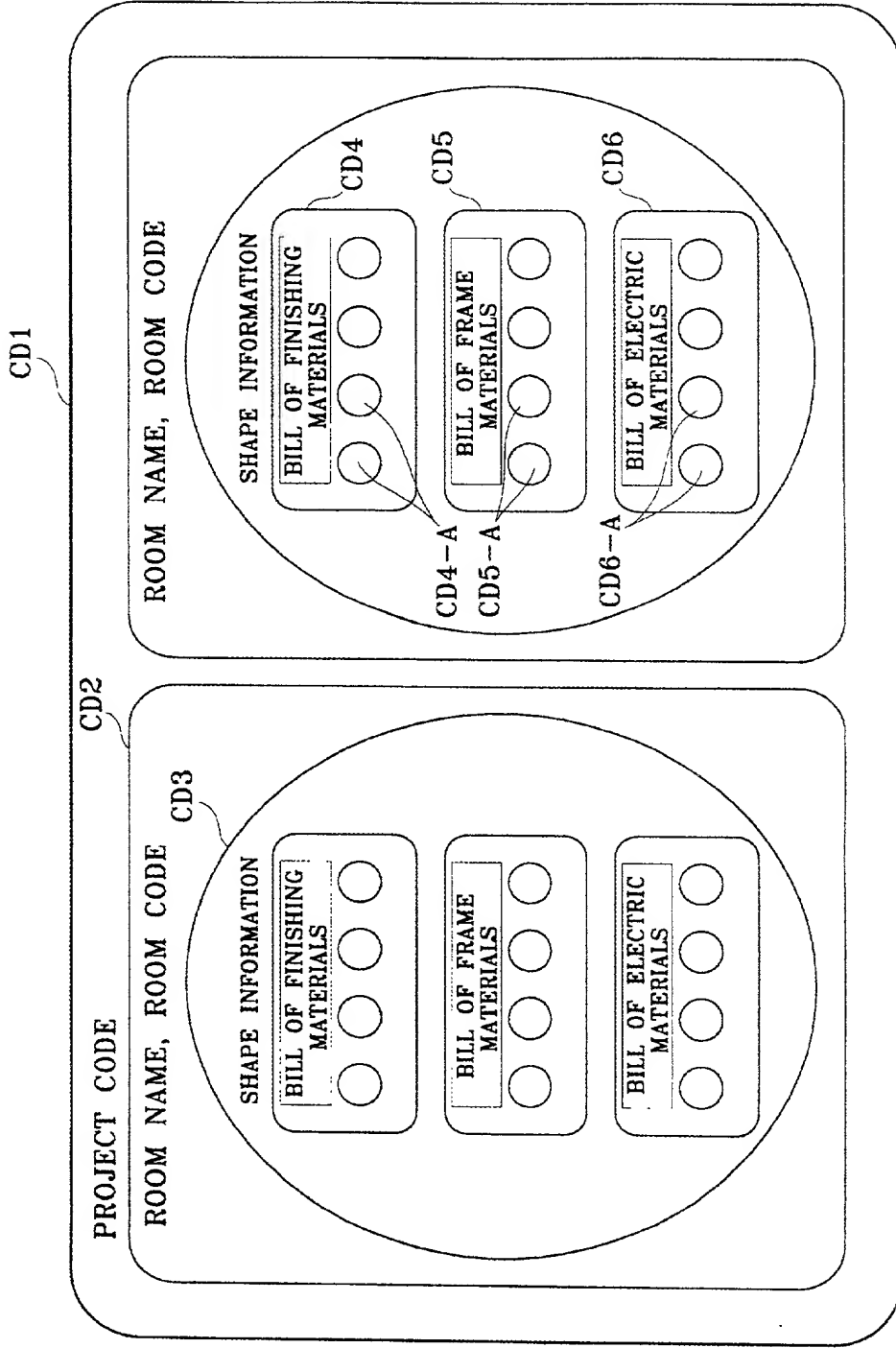


FIG. 3a

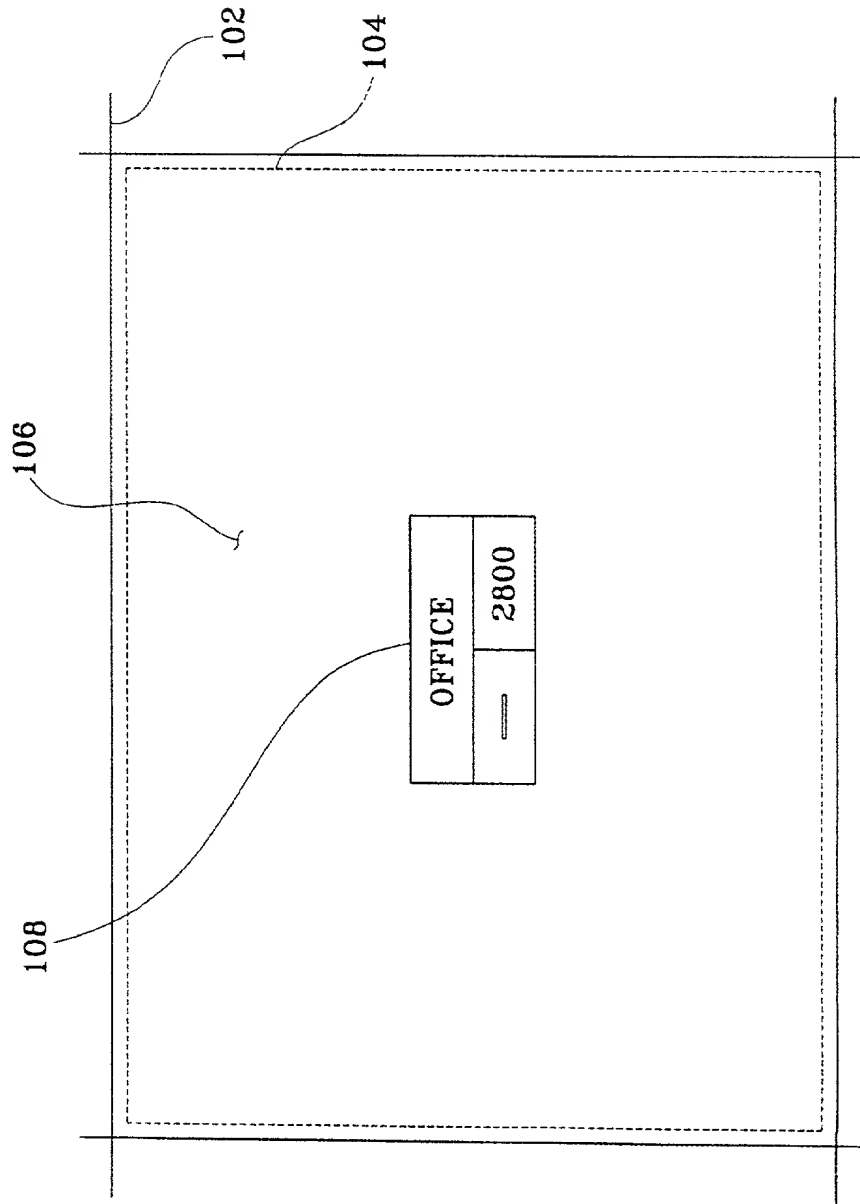


FIG. 3b

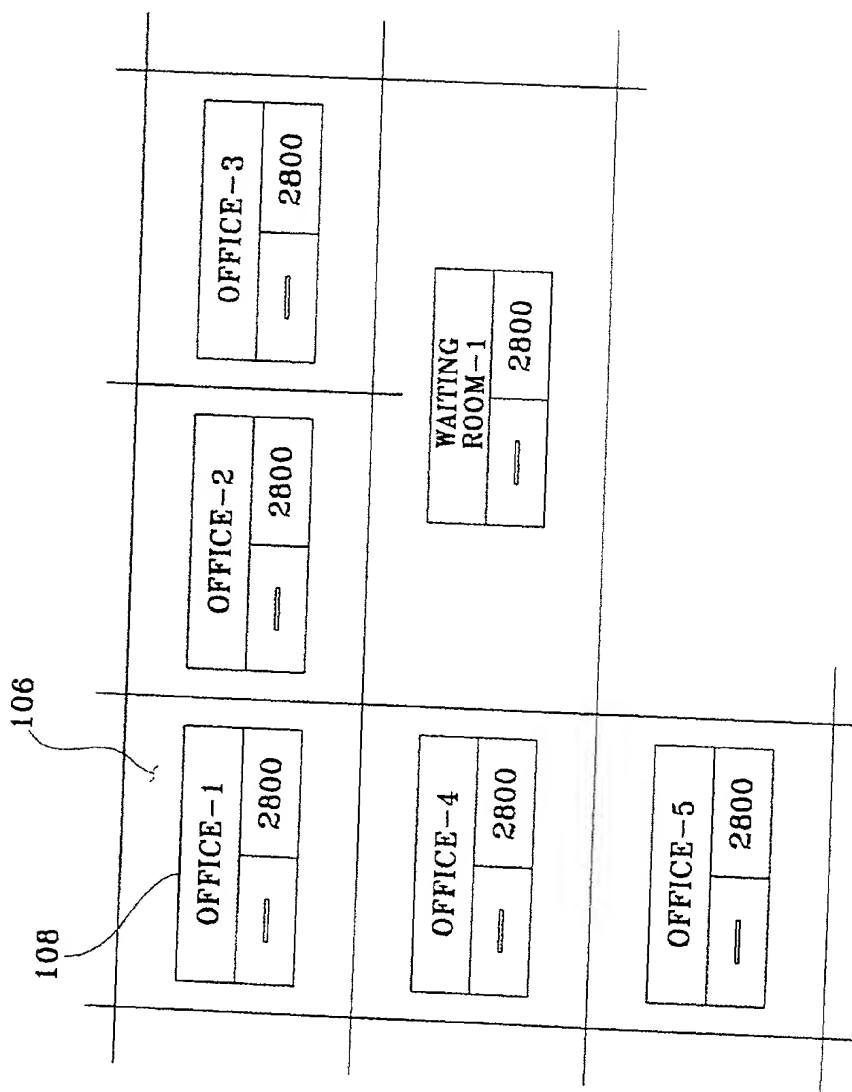


FIG.3c

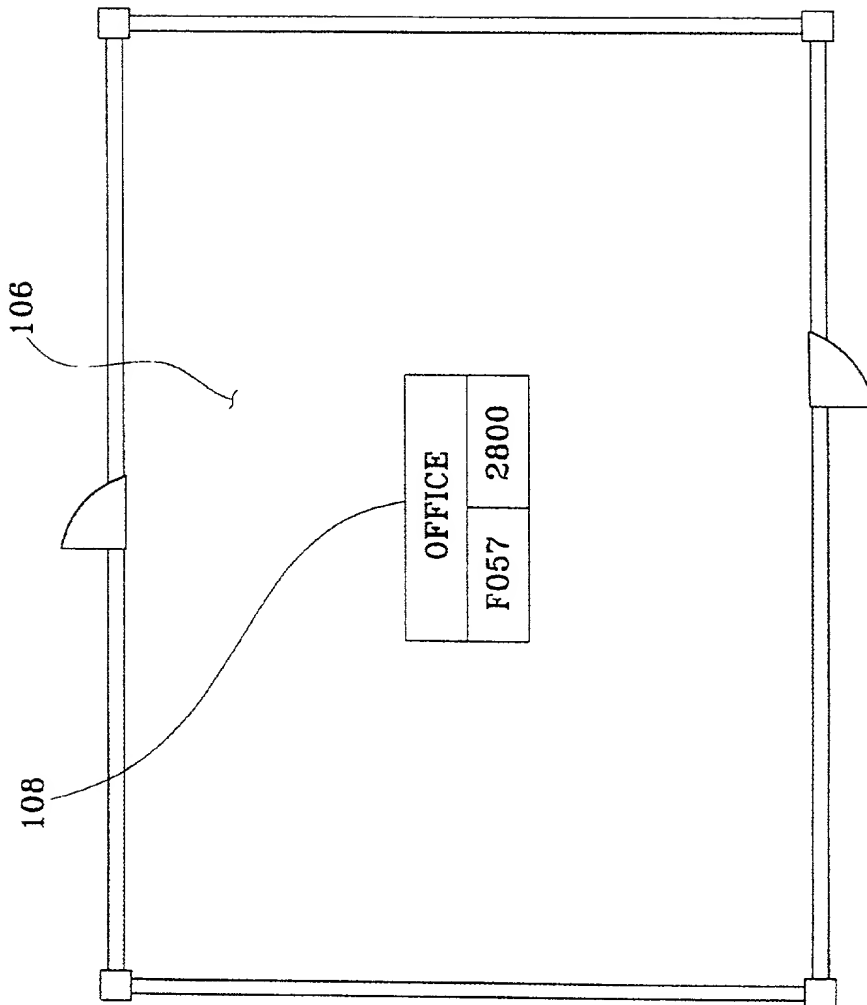


FIG.4

```

1 (defun Room_xdata ( rm_list @bl @pto @han
2 / ed xd rm_name_ rm_num_ rm_finish_ rm_area_ rm_cheig)
3 ( regapp "POINTS" )
4 ( setq rm_name_ (nth 0 rm_list) ;1. ROOM NAME
5 rm_num_ (nth 1 rm_list) ;2. ROOM NUMBER
6 rm_finish_ (nth 2 rm_list) ;3. FINISH NUMBER
7 rm_area_ (nth 3 rm_list) ;4. AREA
8 rm_cheig_ (nth 4 rm_list) ;5. CEILING HEIGHT
9 )
10 ( if (= rm_finish_ "-") (setq rm_finish_ ""))
11 (setq xd (list-3 (list "POINTS"
12 (cons 1000 rm_name_) ;1. ROOM NAME
13 (cons 1000 rm_num_) ;2. ROOM NUMBER
14 (cons 1000 "") ;3. FLOOR INTERSECTION
15 (cons 1000 rm_finish_) ;4. FINISH NUMBER
16 (cons 1000 rm_area_) ;5. FLOOR AREA
17 (cons 1000 "") ;6. HEIGHT OF SKIRTING BOARD
18 (cons 1000 rm_cheig_) ;7. CEILING HEIGHT
19 (cons 1013 @pt0) ;8. ROOM CODE xy COORDINATE(original point)
20 (cons 1011 @pt0) ;9. ROOM CODE xy COORDINATE
21 (cons 1000 @han) ;10. HANDLE
22 (cons 1000 "") ;11. POSITION OF DRAWING
23 (cons 1000 "") ;12. HANDLE VALUE OF ROOM-INTERSECTING POLYLINE
24 ) ) )
25 (setq ed (entget @bl)) ;Entity list of block
26 (setq ed (append ed (list xd)) ) ;Update Entity list of block
27 (entmod ed) ;Combine xdata POINT with entity list of block
28 ) : DEFUN

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FIG.5

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 Inventor: JUNG
 Docket No.: 12109.42US01
 Title: SYSTEM AND METHOD FOR TAKE-OFF OF MATERIALS USING TWO-DIMENSIONAL CAD
 INTERFACED
 Attorney Name: Curtis B. Hanre
 Phone No.: 612-336-4722
 Sheet 7 of 17

ROOM NUMBER : F1 0004		ROOM NAME : OFFICE-4				
ROOM SHAPE AND PLANIMETER	BUILDING ITEM ELEMENT NAME	SPECIFICATION	UNIT	QUANTITY	TAKE-OFF FORMULA	UNIT COST
<div><div></div><div></div><div></div><div></div></div> <div>1/500</div>	WALL [sw-1]	3.60=1.80x2.00	[ssw-1]	1.98=1.80x1.10		
	WATER-BASED PAINT	INNER WALL THREE TIMES	M2	37.55	19.57x2.70-(sw-1)	
	CONCRETE SURFACE TREATING	INNER WALL	M2	37.55	19.57x2.70-(sw-1)	
<div><div>①</div><div>②</div></div> <div>1/200</div>	FLOOR CEMENT MORTAR	FLOOR 24MM	M2	22.42	TA	
	DELUXE TILE	2.5x300x300	M2	22.42	TA	
	CEILING AL MOLDING		M	19.57	TL	
	LIGHT-WEIGHT STEEL FRAME	M-BAR	M2	22.42	TA	

FIG.6a

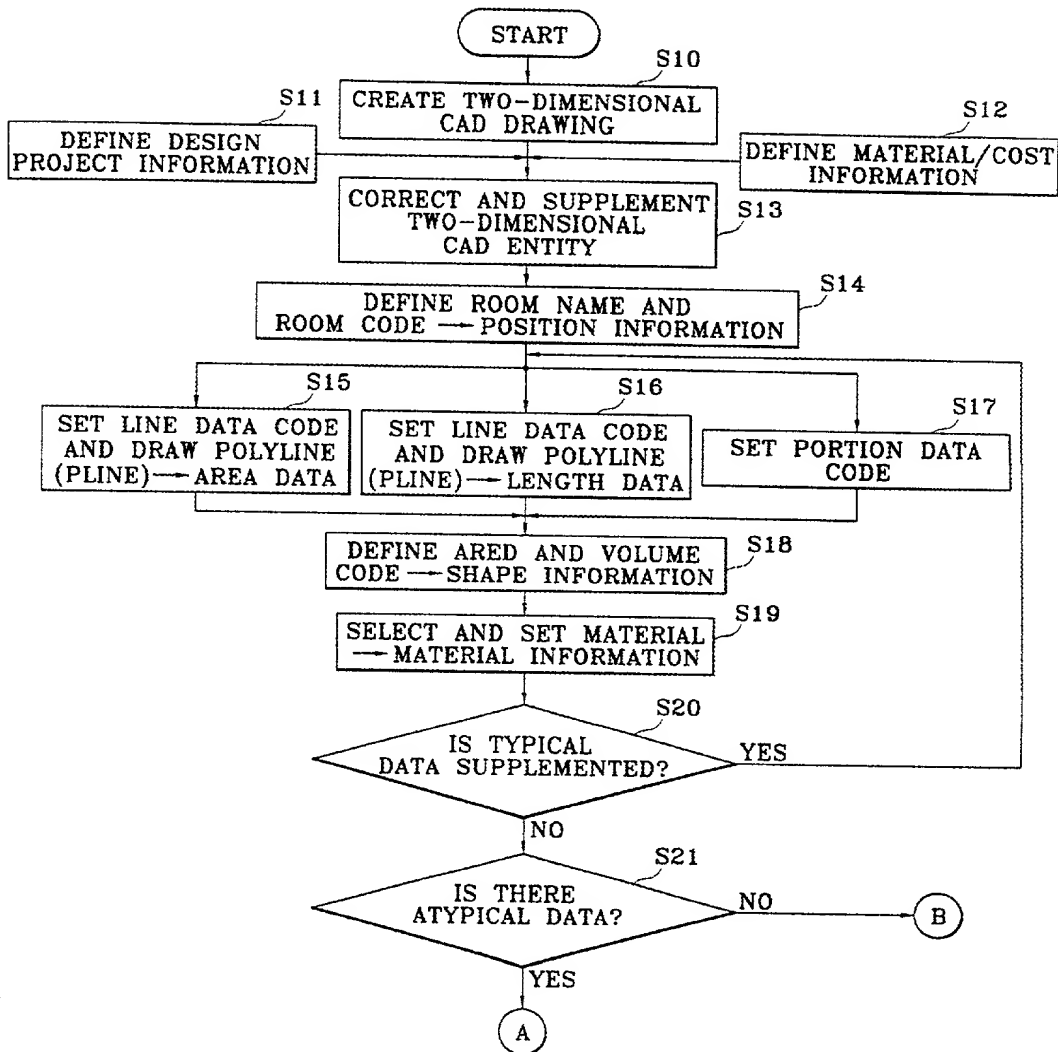


FIG.6b

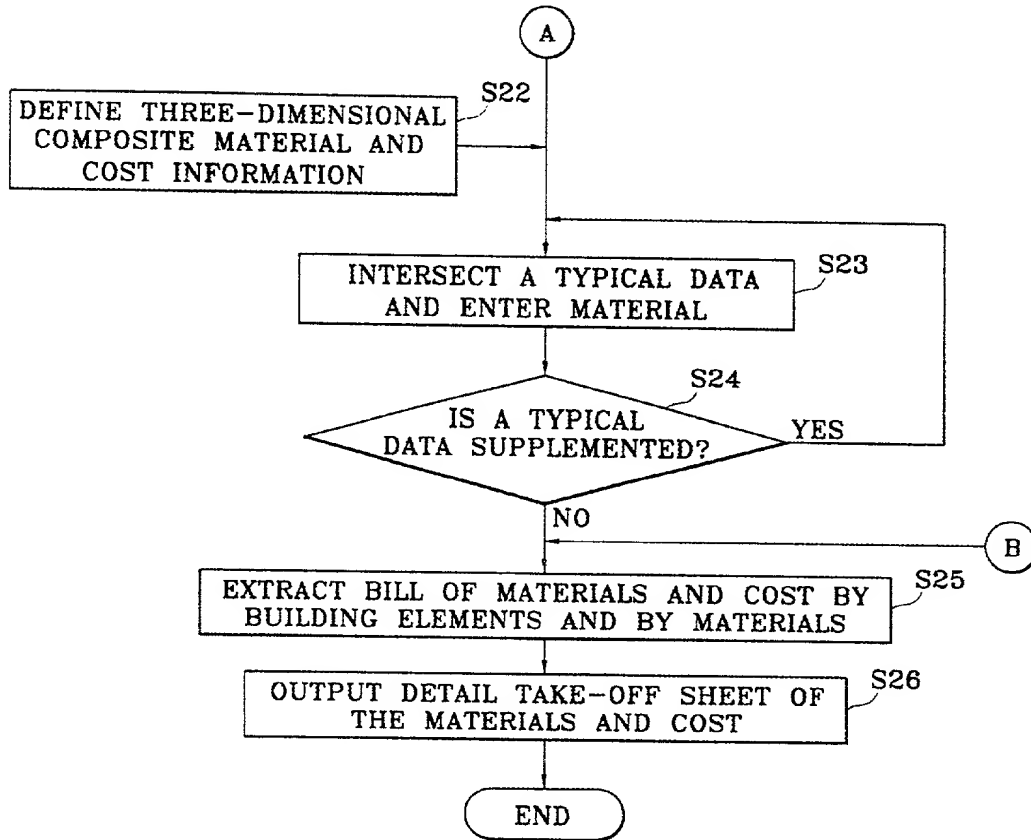


FIG.7

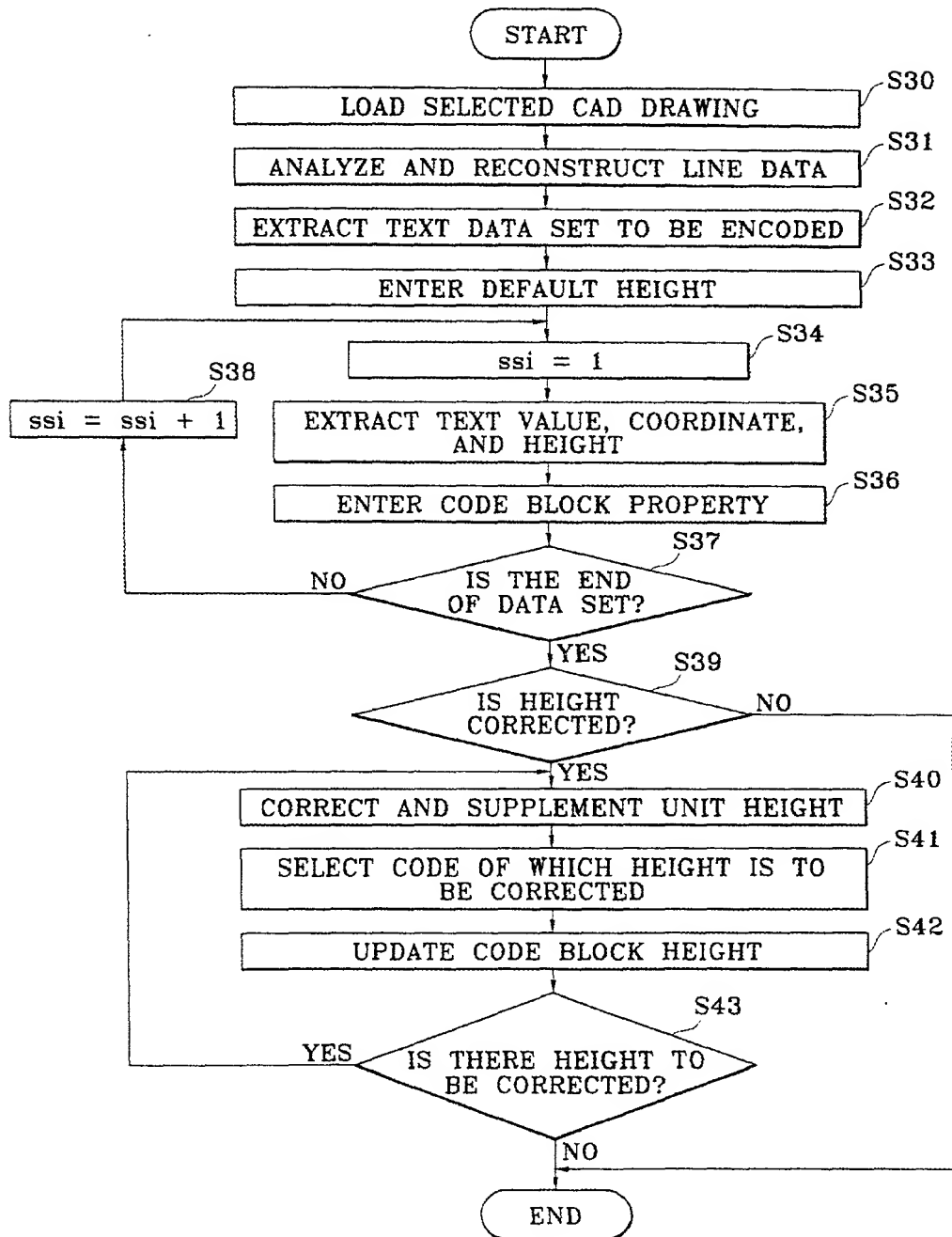


FIG. 8a

READ EXTERNAL DATA

READ RESOURCE

READ LOW PRICE STRUCTURE

DB FILE

TEXT-DISCRIMINATOR

DISCRIMINATE TEXT-BYLE

STORE

CLOSE

TABLE

SELECTED UNIT COST

CODE TYPE

CLASSIFICATION

CODE

ITEM NAME

SPECIFICATION

UNIT

COST ITEM

CLASSIFICATION

UNIT COST1

UNIT COST2

UNIT COST3

UNIT COST4

UNIT COST5

UNIT COST6

UNIT COST7

UNIT COST8

USER UNIT COST

MATERIAL

LABOR

EXPENSES

THE SUM TOTAL

page1

page2

page3

page4

page5

FIG. 8b

SEND OUT RESOURCE

SEND OUT LOW PRICE

SEND OUT RESOURCE

STORE

CLOSE

CODE TYPE

DISCRIMINATOR

ENTER T IN DISCRIMINATING TAB KEY

SELECT DATA TO BE STORED

<input type="checkbox"/>	CODE	<input type="checkbox"/>	ITEM NAME
<input type="checkbox"/>	SPECIFICATION	<input type="checkbox"/>	UNIT
<input type="checkbox"/>	UNIT COST1	<input type="checkbox"/>	UNIT COST2
<input type="checkbox"/>	UNIT COST3	<input type="checkbox"/>	UNIT COST4
<input type="checkbox"/>	UNIT COST5	<input type="checkbox"/>	UNIT COST6
<input type="checkbox"/>	UNIT COST7	<input type="checkbox"/>	UNIT COST8
<input type="checkbox"/>	USER UNIT COST		

FIG.8c

CONSTRUCTION TYPE MANAGEMENT

DELETESELECTUNDO

CODE OF CONSTRUCTION TYPE	NAME OF CONSTRUCTION TYPE
1	COMMON TEMPORARY WORK
2	TEMPORARY WORK
3	SOIL WORK
4	STEEL-REINFORCED CONCRETE
5	STEEL FRAMING
6	MASONRY CONSTRUCTION
7	WATERPROOF WORK
8	TILING
9	STONE WORK
10	WOOD WORK
11	METAL WORK

ENTER NEW TYPE OF CONSTRUCTION

CODE OF CONSTRUCTION TYPE

NAME OF CONSTRUCTION TYPE

STORE

FIG. 9

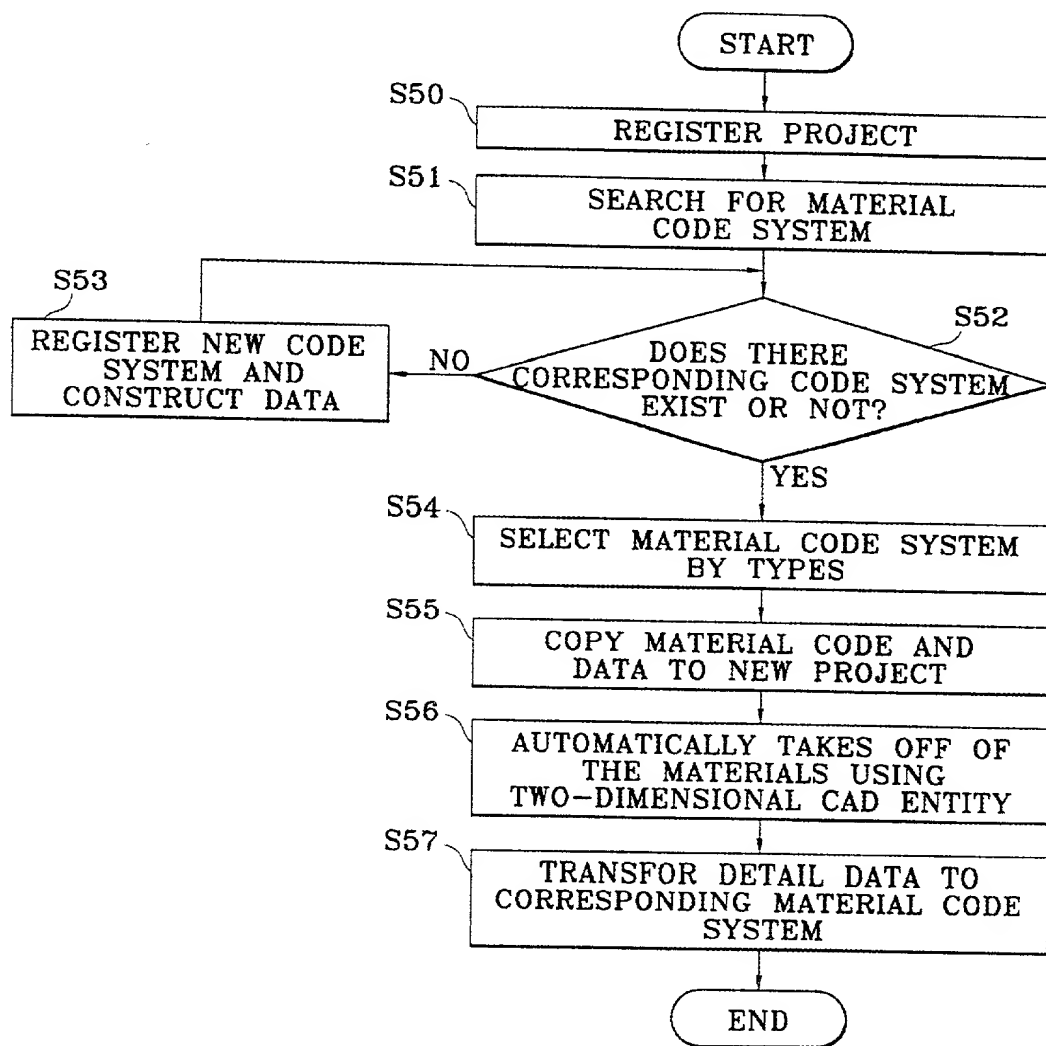


FIG. 10

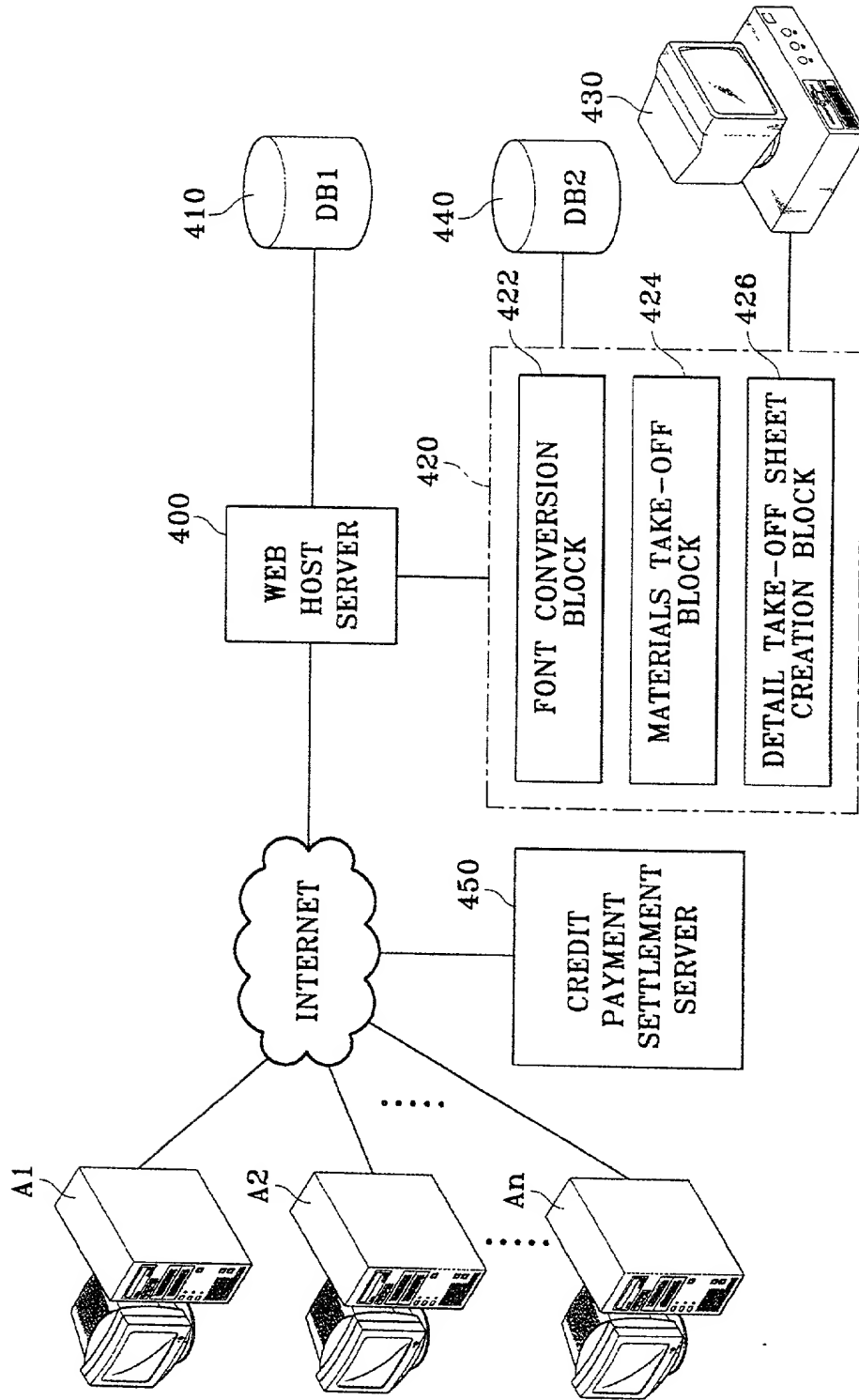


FIG. 11

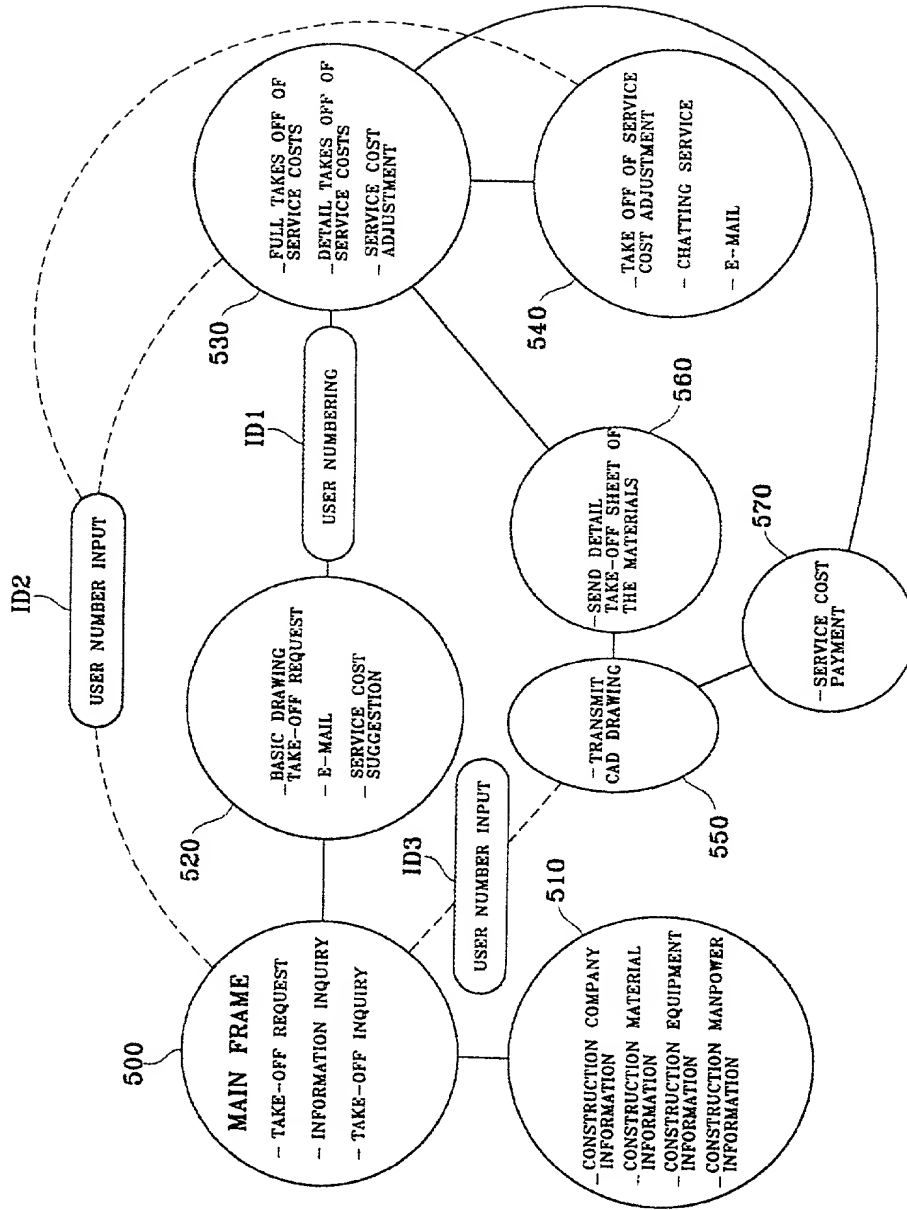


FIG.12

